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ABSTRACT

This paper discusses two techniques for improving the predictive validity of personality measures: (1) measuring dispositional levels of private self-consciousness, that is, one's tendency to habitually reflect on covert aspects of the self such as thoughts, feelings, perceptions, and motives; and (2) priming trait-relevant knowledge (temporarily induced self-awareness) prior to test administration. Approximately 450 subjects filled out the Food Neophobia Scale (FNS), the Self-Consciousness Scale, and several other questionnaires. For the priming task, half of the subjects answered three progressively more specific questions about their food preferences and food selection habits immediately prior to completing the FNS. The validation group was made up of 272 persons from the larger group, each of whom was assigned to groups high (N=127) and low (N=145) in private self-consciousness (PriSC) based on a median split of their scores. For the laboratory validation study, participants performed four different tasks, four months after completing the questionnaires, which assessed both past and present willingness to try novel foods. Subjects high in private self-consciousness had higher validity coefficients than did subjects low in private self-consciousness. Results show that the best behavior prediction was achieved when both private self-consciousness and priming were considered together. Contains 22 references. (RJM)

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Increasing the Predictive Validity of Personality Tests: Private Self-consciousness and Priming of Trait-relevant Knowledge.

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Abstract

Two techniques for improving the predictive validity of personality measures were investigated. Subjects completed the Food Neophobia Scale, either with or without a prior priming task, and the Self-Consciousness Scale four months prior to a series of behavioral validation tasks. As predicted, subjects high in private self-consciousness had higher validity coefficients than did subjects low in private self-consciousness. Priming of trait-relevant self-knowledge was not effective on its own, but combined with private self-consciousness for a significant improvement.

This research examined two techniques for improving the predictive validity of personality measures: 1) measuring dispositional levels of private self-consciousness, 2) priming trait-relevant knowledge prior to test administration.

Private Self-consciousness

Fenigstein, Scheier, & Buss (1975), described private self-consciousness as the tendency to habitually reflect on covert aspects of the self such as thoughts, feelings, perceptions, and motives. It has been suggested that, because of this chronic self-focus, individuals high in private self-consciousness possess more detailed and more accurate self-knowledge than those low in private self-consciousness (Buss, 1980). There is evidence to support this reasoning. Research has shown that when asked to describe themselves, individuals high in private self-consciousness gave more elaborate self-descriptions than those low in private self-consciousness, indicating greater self-knowledge (Turner, 1978b). According to Fiske and Taylor (1984), the efficiency or accuracy of information processing, as well as the consistency of responses indicate the extent to which behaviour is guided by articulated schemata. Test responses of subjects high in private self-consciousness show greater internal consistency (McFarland & Sparks 1985) and test-retest reliability (Nasby 1989). Compared to lows, subjects high in private self-consciousness make faster judgements concerning the self-relevance of trait adjectives (Mueller, 1982; Turner, 1978c) and display superior recall of self-referent than nonself-referent

words (Agatstein & Buchanan, 1984; Hull & Levy, 1979; Turner, 1980).

Fenigstein et al. (1975) suggested that this enriched self-knowledge may lead to more accurate responses on self-reports and, therefore, greater predictive validity for individuals high than low in private self-consciousness. Several studies have supported this prediction. Scheier, Buss, and Buss (1978) found higher correlations between self-reported aggression and aggressive behaviour for subjects high than low in private self-consciousness .66 and .09, respectively, Similarly, self reports of dominance (Turner, 1978a), and sociability (Underwood & Moore, 1981) have been found to be more predictive of behaviour in individuals high than low in private self-consciousness.

Priming

Several researcher have suggested that temporarily induced self-awareness can also enhance the accuracy and predictive validity of self-reports (Duval & Wicklund, 1972; Gibbons, 1983) In fact, there is an abundance of research to suggest that experimental manipulations of self-awareness (typically through exposure to a mirror) produce behavioural effects similar to those associated with high private self-consciousness (see Scheier & Carver, 1980 for a review). According to Duval and Wicklund (1972), increasing self-focus during administration of self-reports increases awareness of or access to test-relevant self-knowledge. As a result, the responses given are more accurate and more predictive of behaviour.

There is evidence to suggest that priming trait-relevant self-knowledge prior to test administration would increase the predictive validity of self-reports, although we could find no published studies that directly test this assumption. Research on attitude-behaviour consistency has found that more accessible attitudes are more likely to predictive behaviour (Fazio, Chen, McDonel, & Sherman, 1982; Kallgren & Wood, 1986; Norris & Devine, 1992; Powell & Fazio, 1984). Fazio, Chen, McDonel, & Sherman, 1982) found that increasing the accessibility of an attitude prior to its measurement increases the strength of the relationship between that attitude and subsequent behaviour. Knowles (1988) examined the relationship between serial position and item reliability on a number of personality tests. He found that the reliability of later items was greater than that of earlier items. In explaining these results, Knowles reasoned that earlier items increase the accessibility of self-knowledge relevant to the test. As a result, subjects can respond to later items with greater accuracy. Hamilton & Schuminsky, 1990) replicated Knowles finding and tested his reasoning. They assumed that increasing self-awareness prior to test administration activates all self knowledge including that tapped by the measure. Consequently, any serial position effects on reliability should disappear, since, once primed, test-relevant self-knowledge would not be primed further by early test items. Subjects completed a task designed to focus attention either internally or externally prior to completing a measure of

anxiety. Analyses indicated that reliability was unrelated to serial position for internally focused subjects, but was significantly correlated for externally focused subjects.

The Present Research

The purpose of this study was to examine the separate and combined effects of the priming and private self-consciousness on the predictive validity of a measure of personality, in this case trait food neophobia. The Food Neophobia Scale (Pliner & Hobden, 1992) is a 10-item scale that measures the dispositional tendency to avoid novel foods. The FNS has been found to have adequate test-retest reliability and internal consistency. This scale was used because it is a transparent measure, and the behaviour it predicts occurs daily. Much of the previous measurement research on private self-consciousness has investigated more abstract traits and less face-valid measures, a circumstance that would tend to reduce self-report accuracy in individuals low in private self-consciousness and magnify the difference between high and low private self-consciousness subjects. Such a difference in predictive validity would be of greater interest where the behaviour is readily apparent and the test is obvious. In addition, the present study used a test administration-validation interval of approximately four months, a more stringent test of validity than the usual 2-3 weeks.

We expected that the FNS would be more predictive of the food selections in high than low private self-conscious subjects. Additionally we thought that the FNS would be more predictive of

primed than nonprimed subjects behaviour in primed than nonprimed, especially those low in private self-consciousness.

Method

A. FNS Scale Administration and Priming

Scale Administration. Approximately 450 introductory psychology students filled out the Food Neophobia Scale (FNS), the Self-Consciousness Scale (Fenigstein, Scheier, & Buss, 1975), and several other questionnaires during a regular class period four months prior to the validation part of the study. Two hundred and seventy-two subjects participated in the validation study as partial fulfilment of a course requirement. These subjects were divided into groups high (N=127) and low (N=145) in private self-consciousness (PriSC) based on a median split of their scores.

Priming Task. Immediately prior to completing the FNS, half of the subjects answered 3 progressively more specific questions about their food preferences and food selection habits. The final question asked subjects to remember their last opportunity to try an unfamiliar food, recalling whether they had tried it, and why or why not. This task was intended to prime self-knowledge relevant to food selection in general and to food neophobia in particular.

B. Scale Validation

Subjects were recruited by phone approximately four months after administration and were run in groups of one to ten. Four quite different tasks were included in the laboratory validation

study, in order to assess both past and present willingness to try novel foods. The order in which subjects completed the tasks was randomized. In each task Ss rated a series of food-related stimuli (food items or restaurants), based either on past consumption or on current willingness to consume. The stimuli were initially selected to cover the range from complete novelty to complete familiarity, but ultimately only novel stimuli were used as indicators of food neophobia. Novelty of the food items was assessed by a separate group of 70 students, and each item was weighted in the final behavioral measures by its mean novelty rating.

1. Real Foods. Subjects viewed twelve foods from each of three food groups (breads, fruits, vegetables) and rated their willingness to try each. They expected to taste a subset of the foods later in the session, with selection to be based on their willingness ratings.

2. Food Services Questionnaire. Subjects rated the likelihood of their purchasing specific foods (including sandwiches, soups, snacks, salads, and stews) that the campus cafeteria was ostensibly considering for its menu.

3. Food preferences. Subjects indicated their liking for foods in 7 categories (vegetables, fruits, cheeses, cereal grains, poultry, fish and seafood, and deli meats), with "never tried" as the first response option. The dependent variable, a measure of past novel-food consumption, was the number of foods previously tried.

4. Restaurant Survey. Subjects indicated how frequently they had visited restaurants that specialized in various specific ethnic cuisines. The number of restaurant types ever visited was the measure of past behaviour.

5. Aggregate. Scores for the four separate behavioral tasks were averaged to produce an aggregated behavioral measure for each subject.

Results

The mean willingness to try novel foods ("food adventurousness") was calculated for each of the four tasks separately and for the aggregate. Correlation between FNS score and each of the five measures of food adventurousness was calculated separately for high and low PriSC subjects and for the priming and no-priming conditions.

Table 1 indicates that the correlations between FNS scores and behaviour were in general larger for high-PriSC subjects. This difference was significant for the real foods task (t=2.14, p<.025) total, and the aggregate (t=2.40, p<.025). The best behaviour prediction was achieved when both private self-consciousness and priming were considered (Table 2). The validity coefficients for primed high-PriSC subjects were significantly greater than for not-primed low-PriSC subjects, for the real foods task (t=2.06, p<.01), and for the aggregate (t=2.11, p<.025), and were marginally greater for the food service task (t=1.33, p<.10). Priming alone did not significantly increase behavioral prediction; however, the

correlations in Table 2 suggest that priming was more effective for subjects low in private self-consciousness.

Discussion

It is noteworthy that the effects of both priming and private self-consciousness were most evident for real foods, of the four tasks. Because subjects actually viewed the foods and believed they would be tasting these foods subsequently, this task most strongly parallels non-laboratory behaviour. The results of this study indicate that the predictive validity of personality tests can be optimized by considering dispositional levels of private self-consciousness, by priming trait-relevant knowledge prior to test administration.

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Table 1

Correlation Between Self-reported Food Neophobia and Behavioral Food Adventurousness as a Function of Private Self-consciousness

	High private (n = 127)	Low private (n = 145)
Real foods task	$r = -.55_a$ $p < .001$	$r = -.34_b$ $p < .001$
Food services task	$r = -.53$ $p < .001$	$r = -.43$ $p < .001$
Food preferences	$r = -.23$ $p < .01$	$r = -.21$ $p < .02$
Restaurant survey	$r = -.36$ $p < .001$	$r = -.36$ $p < .001$
Total Adventurousness Score	$r = -.63_a$ $p < .001$	$r = -.40_b$ $p < .001$

Correlations with different subscripts are significantly different from each other ($p < .05$). Cell n's ranged from 55 to 73.

Table 1

Correlation Between Self-reported Food Neophobia and Behavioral Food Adventurousness as a Function of Private Self-consciousness and Priming

		High private		Low private	
		priming	no priming	priming	no priming
Real foods task	r	$-.57_a$	-.52	.40	$.27_b$
	p	<.001	<.001	<.001	<.05
Food services task	r	-.57	-.50	-.47	-.39
	p	<.001	<.001	<.001	<.001
Food preferences	r	-.11	-.32	-.26	-.14
	p	ns	<.01	<.05	ns
Restaurant survey	r	-.31	.38	-.34	-.36
	p	<.02	<.01	<.005	<.005
Total Adventurousness	r	$-.63_a$	-.61	-.47	$-.33_b$
	p	<.001	<.001	<.001	<.01

Correlations with the different subscript are significantly different from each other ($p < .05$). Cell Ns ranged from 55 to 73.